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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/744,493	06/19/2001	Vincent Bryan	46739/252170	5642

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EXAMINER

STEWART, ALVIN J

ART UNIT

PAPER NUMBER

3738

DATE MAILED: 12/18/2001

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/744,493

Applicant(s)

BRYAN ET AL

Examiner

Alvin Stewart

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Jun 19, 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☐ All b) ☐ Some* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- *See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892) 18) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 19) ☐ Notice of Informal Patent Application (PTO-152)
- 17) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). 5 20) ☐ Other:

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DETAILED ACTION

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the sheath attached to the housing halves must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Claim Objections

Claim 18 is objected to because of the following informalities: in line 4, the word viscoelastic is misspell. Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371© of this title before the invention thereof by the applicant for patent.

Claims 1, 3, 8 and 9 are rejected under 35 U.S.C. 102(e) as being anticipated by Shepperd US Patent 4,863,476.

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Shepperd discloses a cylindrical housing (1), the housing including an upper half (5), a lower half (6), a plurality of resilient discs (3) interposed between the upper half housing and the lower half housing to maintain the housing halves separate from one another. Each disc is surrounded by concave surfaces (8 & 9) formed within the housing.

Claims 11-13, 16 and 17 are rejected under 35 U.S.C. 102(e) as being anticipated by Rogozinski US Patent 5,888,226.

Rogozinski discloses a hollow cylindrical housing including two separate halves, one resilient disc having a convex external surface located between the two housing halves, and an interior concave surface. The resilient disc has a relative soft interior and a relative hard durable exterior (see Figs. 1-12).

Claims 18 and 19 are rejected under 35 U.S.C. 102(e) as being anticipated by Cauthen US Patent 6,179,874.

Cauthen discloses an articulating spinal implant comprising a housing with an exterior surface having a thread formation, two rigid confronting parts, and one resilient disc interposed between the rigid parts.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the

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subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4-6 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shepperd US Patent 4,863,476 in view of Cauthen US Patent 6,179,874 B1.

Shepperd discloses the invention substantially as claimed. However, Shepperd does not disclose a threaded exterior surface and recesses to permit bone ingrowth.

Cauthen teaches a threaded exterior surface and recesses to permit bone ingrowth for the purpose of attaching the implant between two vertebrae bone.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the exterior surface of the Shepperd reference with the threaded exterior surface and recesses of the Cauthen reference in order to attach the implant between two vertebrae bone.

Claims 2 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shepperd US Patent 4,863,476.

Shepperd discloses the invention substantially as claimed. However, Shepperd does not disclose a disc having an ovoid-shape and a plurality of wings attached to each member.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to add a plurality of wings attached to the members in order to fix the implant to the vertebrae bones.

Regarding claim 2, it would have been obvious matter of design choice to modify the Shepperd reference by having discs with an ovoid-shape, since applicant has not disclosed that the

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ovoid shape solves any stated problem and it appears that the cylindrical shape of the Shepperd reference would perform equally.

Claims 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rogozinski US Patent 5,888,226.

Rogozinski discloses the invention substantially as claimed. However, Rogozinski does not disclose an external threaded surface and a plurality of recesses in order to permit bone ingrowth.

It is common knowledge in the prior art to have threaded external surfaces and a plurality of recesses in the same field of endeavor for the purpose of attaching the device within the vertebrae plates.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the external surface of the Rogozinski reference with a threaded surface and a plurality of recesses in order to promote the growth of bone tissue and attach the implant within the vertebrae plates.

Claims 20 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cauthen US Patent 6,179,874 B1.

Cauthen discloses the invention substantially as claimed. However, Cauthen does not disclose a sheath attached to the housing halves and a plurality of nuclei of different sizes.

Regarding claim 20, it would have been obvious to one having ordinary skill in the art at the time the invention was made to add a sheath attached to the housing halves in order to promote the growth of bone tissue into the implant. Additionally, it would have been obvious to one having

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ordinary skill in the art at the time the invention was made to include a plurality of nuclei of different sizes in order to fit different sizes of the implant.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Exr. Alvin Stewart whose telephone number is (703) 305-0277. The examiner can normally be reached on Monday-Friday from 7:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Corrine McDermott, can be reached on (703)308-2111. The fax phone number for the organization where this application or proceeding is assigned is (703) 305-3590.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0858.



Alvin Stewart

December 06, 2001.



**CORRINE McDERMOTT
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3700**

Attachment for PTO-948 (Rev. 03/01, or earlier)
6/18/01

The below text replaces the pre-printed text under the heading, "Information on How to Effect Drawing Changes," on the back of the PTO-948 (Rev. 03/01, or earlier) form.

INFORMATION ON HOW TO EFFECT DRAWING CHANGES

1. Correction of Informalities -- 37 CFR 1.85

New corrected drawings must be filed with the changes incorporated therein. Identifying indicia, if provided, should include the title of the invention, inventor's name, and application number, or docket number (if any) if an application number has not been assigned to the application. If this information is provided, it must be placed on the front of each sheet and centered within the top margin. If corrected drawings are required in a Notice of Allowability (PTOL-37), the new drawings **MUST** be filed within the **THREE MONTH** shortened statutory period set for reply in the Notice of Allowability. Extensions of time may **NOT** be obtained under the provisions of 37 CFR 1.136(a) or (b) for filing the corrected drawings after the mailing of a Notice of Allowability. The drawings should be filed as a separate paper with a transmittal letter addressed to the Official Draftsperson.

2. Corrections other than Informalities Noted by Draftsperson on form PTO-948.

All changes to the drawings, other than informalities noted by the Draftsperson, **MUST** be made in the same manner as above except that, normally, a highlighted (preferably red ink) sketch of the changes to be incorporated into the new drawings **MUST** be approved by the examiner before the application will be allowed. No changes will be permitted to be made other than correction of informalities, unless the examiner has approved the proposed changes.

Timing of Corrections

Applicant is required to submit the drawing corrections within the time period set in the attached Office communication. See 37 CFR 1.85(a).

Failure to take corrective action within the set period will result in **ABANDONMENT** of the application.